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Established 1859 Pioneer of the Gas Industry

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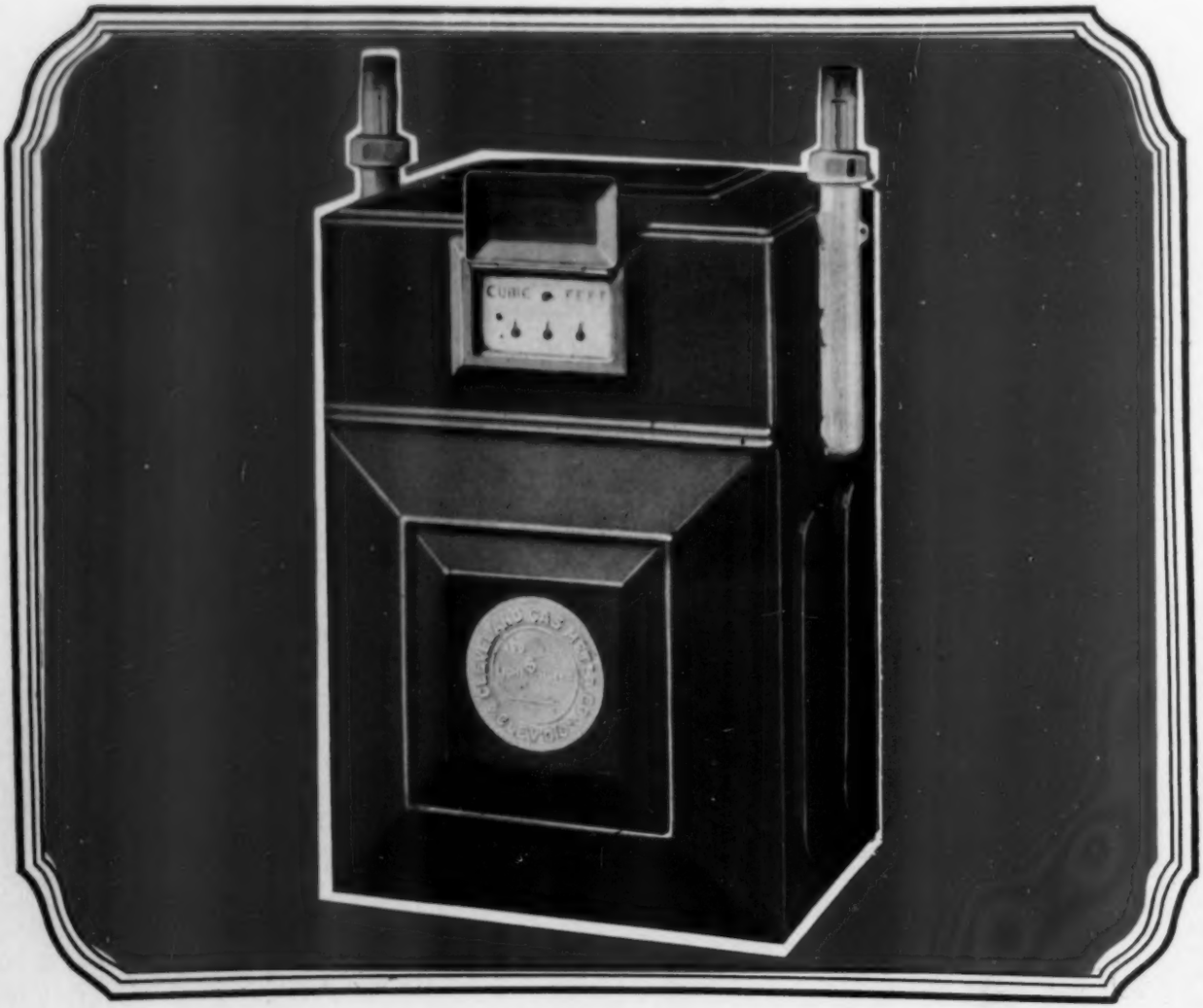

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Cleveland Gas Meters have a reputation for dependable service, the result of over thirty years' experience in manufacturing.

Our thoroughly organized and completely equipped factory assure you that the workmanship, materials, accuracy and general efficiency are unequaled.

"A" and "B" Types Meter Repairing

CLEVELAND GAS METER COMPANY

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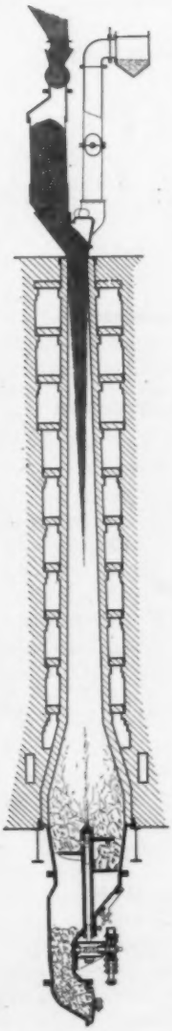
GLOVER-WEST
Vertical Retorts



American Installations

Fitchburg, Mass.
Springfield, Mass.
Pawtucket, R. I.
Portland, Me.
Ottawa, Ont.
Montreal, Que.
Fitchburg, Mass. (Repeat)
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Montreal, Que. (Repeat)
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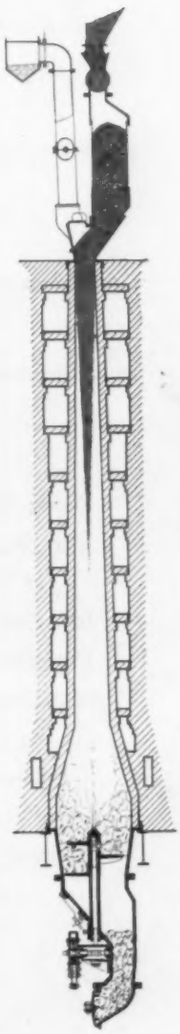

WEST GAS IMPROVEMENT CO.
of America, Inc.
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American Gas Journal

SIXTY-SIXTH YEAR

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AMERICAN
GAS JOURNAL

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Doing Business in Hilo

An interesting story, as told by Mr. Wilson, manager of the Hilo Gas Co. to W. B. Stoddard

DOING business in Hilo is much different from that on the mainland. Here we not only have to contend with the constantly shifting white population (few of whom remain more than a year or two), but also with the old ideas of the Orientals, who make up the bulk of the population. The white population is only about 500, in a city of 12,000. Most of these come for some special work and are then transferred elsewhere. Consequently they do not feel like investing much in expensive equipment such as gas hot water systems. The Orientals are good customers, once they are persuaded of the efficiency of gas, but it requires time to educate them. The Chinese are few in number in Hilo, but they are good customers and give less trouble than any others, including the whites. A Chinaman's word is as good as his bond. They never default, and if unable to pay at the appointed time will always come in and tell you, and advise when they can pay.

The Japanese are the dominating race so far as numbers are concerned. The poorer class use very primitive methods of cooking and heating. The community kitchen is common. Each family has its own charcoal pot and cooks its meals in the general kitchen. The way we get their business is to get hold of an especially intelligent Jap (we have a Japanese salesman who assists in the plan) and give him a gas plate free, charging only for the gas. It is only a short time after he has been using the new plate in the common kitchen before others are inquiring about them, and several times we have sold gas plates to the entire number through our gift to the first one.

Hot Water Business

The Japanese are great bathers, but their bathing facilities are as primitive as their cooking arrangements. There will be a large community bath tub, with a partition down the center, the men using one side, the women the other. The water is heated once a day and there is a constant procession of bathers. The first-to-come get hot, clean water, but by the time the laggards arrive, it is decidedly cool and dirty. They finish the bath by throwing fresh, cold water over themselves. For these bathing privileges a person is charged 25c a month, so they figure each bath costs about a cent. A very inexpensive bath! It is quite a problem to get them to use gas, but it has been done in a number of communities. The above applies only to the poorer class, of course. The well-to-do Japanese, who are making good money, want everything modern and up to date and their homes are models of gas and electric efficiency. In fact, two-thirds of the gas used in Hilo is consumed by Japanese. One very commendable trait of the Japanese is that they always live within their means. If they have money, they spend it freely, but if they don't they go without, instead of buying recklessly on credit as do so many people. There are three Japanese boarding schools in Hilo, and in each of them is installed a hot water system.

The Filipinos are mostly of the poorer class and, except when living in plantation houses, where gas is furnished by the sugar company, cook their meals in the open over a couple of hot stones.

The Portuguese here are mostly poor and unable to afford the modern conveniences. They all have big families and a man with seven or eight children, making an average of $60 a month cannot have many luxuries, and in fact finds it hard to get the necessities.

Advertising Gas Service

We advertise in both the English and Japanese newspapers, but so far have not made use of the Portuguese paper. We have to suit our advertising to local conditions. Just as an example: We have a very heavy rainfall in this locality, and all the Filipino, Hawaiian and Oriental houses are built on stilts, with a space underneath the house for the drying of clothes. Recently we inaugurated a cam-

paign for the sale of gas driers, featuring them both in ads and in window displays, showing how much more quickly and efficaciously clothes could be dried with the gas dryer. Pictures of dwellings so equipped were shown, and special sale prices were put into effect in order to properly introduce the dryers.

And, speaking of featuring prices, while this is very good when special sales are being staged, it is

Gas Holders of the Hilo Gas Co., Hilo, Hawaii

not our policy to quote them in our window displays or ads, relying on the quality of our merchandise to speak for itself.

We have not used direct mail advertising to any great extent, but have been very successful with the little we have done. Hilo is a comparatively small town, and the personal letter is found to be far better than a form one. It takes more time, but it hits the bull's eye more effectively. Instead of getting up a stereotyped letter and mailing it broadcast, trusting that some of the seed will fall on fertile ground, whenever we get in some specialty that will interest some one or half a dozen of our customers, I sit down and write a personal letter to each, varying my comments to suit the individual. I know most of our regular patrons so well that I am pretty sure what will interest them, and these letters nearly always bring personal calls and result in the sale of many new specialties.

Samples of Newspaper Advertising

We try to have our newspaper advertising always of a constructive nature, and one of the best campaigns, so far as direct results are concerned, was that inaugurated by us last fall. We started out with a big ad showing two young matrons in animated conversation, the ad being captioned:

Every Housewife Knows That GAS Is the Cleanest, Cheapest and Quickest in the Kitchen

COOK WITH GAS

in your new home

Watch for our series of advertisements on the service of Gas starting next Friday and running every Friday following on the Woman's page of the Tribune-Herald.

The first of these ads introduced the Service Department, and the service man, Mr. J. Burgese, was sent out to make a visit to each home where gas was used and told to go over the gas connections and appliances. The advertisement read in part:

> "Ask him any questions concerning the saving qualities of gas and how to eliminate all unnecessary waste. He will show you how the flame should look to radiate the most heat, and also how to clean the burners. * * * Don't hesitate to call him up if some part of your range is not working right, or if you have any complaints to make. * * * The next article will show how large a factor Gas can be made in the saving of time, labor and expense. Be sure to read it."

Each ad in turn, linked up with the next one, and they were all made so interesting and informative that they were read with as much interest as a news story. "We feature our "quick service" in direct mail, also, as well as impressing it upon all who call at the office personally. Our 'trouble man' as he is usually called, is an Italian who has been in Hilo many years, and is known and liked by all. He has dealt with Orientals for years, so they all have confidence in him. He lives on the property of the gas plant, and has a telephone in his home. This telephone number is registered in the Hilo telephone directory, with the suggestion that calls will be answered at any hour of the day or night, and on Sundays and holidays as well as business days. It gives the housewives of the city a feeling of security to know that no matter when anything goes wrong with the stove or the plumbing she can have it adjusted as quickly as the man can make the trip from his home to hers."

Section of the Display Room of the Hilo Gas Co. All the Stoves Are Enameled Grey or White

The Gas Company Office

There is a neat little combined window and salesroom display at the gas company office. A portion of the room is fenced off with a white railing, and herein are displayed enamelled ranges, water heaters, and small appliances, set off by graceful palms and ferns. This display can be seen from the street

(Continued on page 143)

The Santa Barbara Earthquake

Its effect upon the properties of the Southern Counties Gas Co.

Frank H. Bivens

General Agent, Southern Counties Gas Co. Los Angeles, Cal.

THE first earthquake shock, as near as can be determined, was at 6.43 A. M., June 29, 1925, with numerous shocks of much less intensity throughout the day and for several days following, as was clearly indicated by the vibrations of the pen on a Tycos recording thermometer, which is installed on the intake natural gas line in the gas plant. Photographs of six of these charts are herewith attached.

A comparison of the intensity of the earthquakes is shown by the length of the cross lines made by the pen on these charts. The long line on the chart of June 29th, at about 6.45 A. M., indicates the quake which did practically all of the damage. Each of the short lines on all of the charts, excepting those marked by circles, which were caused by disturbing the gauge, are earthquake shocks. The small lines indicate very small shocks which could not be felt, but shocks similar to the one shown on the chart of June 30th, just before 6 A. M., could be very plainly felt when standing on the ground.

Gas Shut Off

At the time of the earthquake, 6.45 A. M., June 29, 1925, the Santa Barbara gas plant, where natural gas is reformed and mixed for distribution in the city, had started operations for the day and was in charge of Operator Henry F. Ketz. Immediately after the heaviest shake and while minor shakes were still continuing, Ketz noticed that the differential hand on the orifice meter, measuring the gas sent out to the city, had gone off the edge of the chart, indicating an instantaneous and very great increase in the rate of flow. With most commendable and clear-headed thoughtfulness, he realized that this increase in flow must be due to breaks in the main, so he immediately shut off the main valve on the pipe line leading into the city. Gas was thus completely shut off in two or three minutes after the earthquake.

It seems almost certain that this very prompt action on the part of Operator Ketz saved the City of Santa Barbara from a disastrous fire as the water pressure in the mains was very low for several hours after the quake, due to the breaking of the main 20-inch feed line, which required about four hours to repair; and if a fire had started anywhere in the city, a serious conflagration no doubt would have occurred.

Mr. Ketz's devotion to duty in this emergency has been rewarded by the officials of the company, who presented him with a beautifully engraved gold watch and chain; and we understand that the people of Santa Barbara and Montecito are taking up a collection, part of which will be presented to Mr. Ketz as a testimonial of their appreciation of his action in the emergency.

No Serious Damage Done to Manufacturing Plant

Fortunately, no serious damage was done to the manufacturing plant of the company by the earthquake. The only damage at the plant was the breaking of six of the cast iron guide-rollers on the holders, which were quickly repaired by welding. The holders were not thrown out of alignment. A large part of the glass equipment in the plant's laboratory was thrown down and broken.

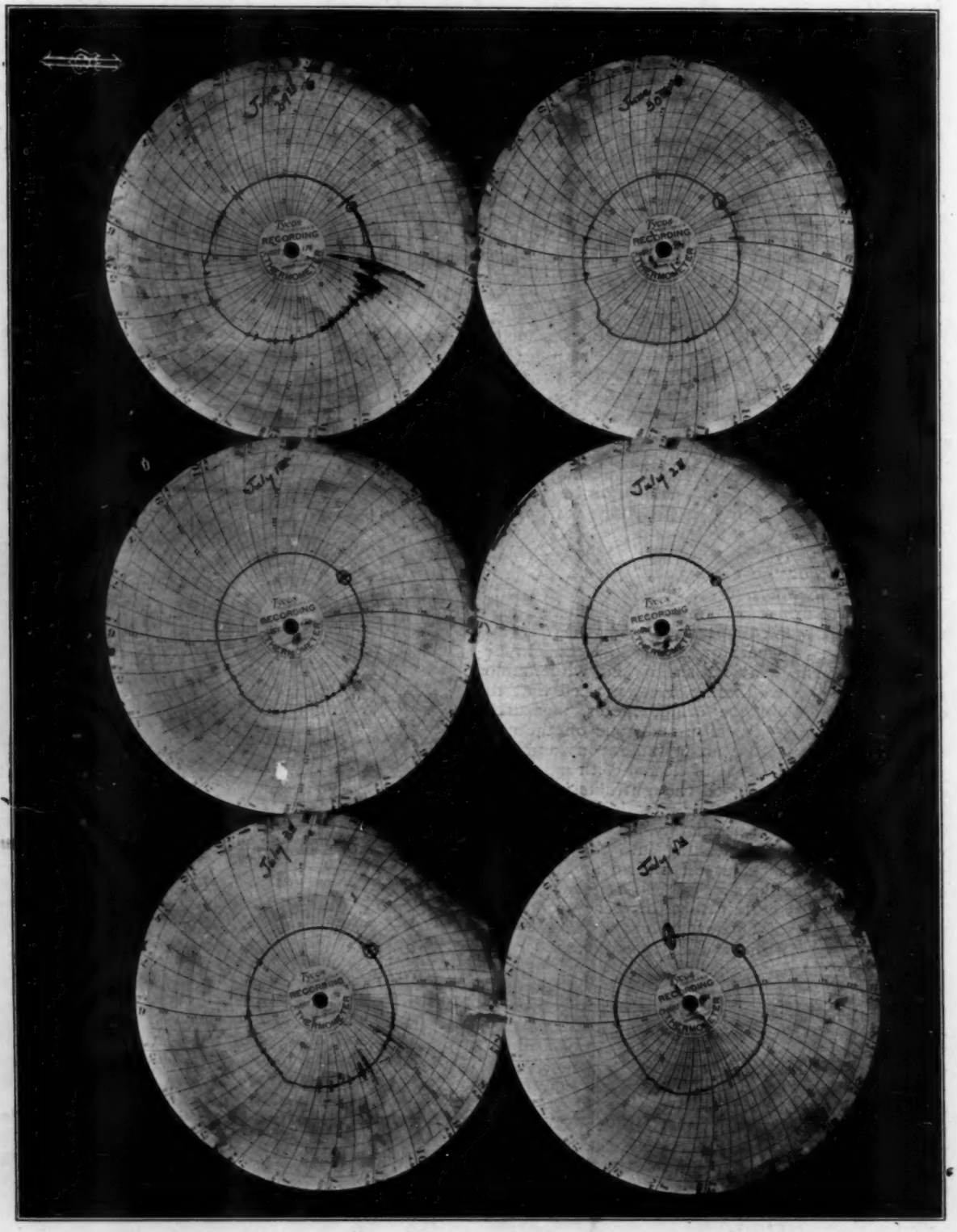
It is interesting, however, to note that the earthquake was sufficiently strong to slop a large quantity of water out of the 300,000 cu. ft. holder, and also to move a 14-foot by 28-foot straight-shot oil gas generator, which was in operation at the time, ¾-inch on its foundation, but connections, apparently, had sufficient give so that they were not broken.

Ferdinand R. Bain, president and general manager of the Southern Counties Gas Company, presenting to Henry F. Ketz, company engineer who saved Santa Barbara from a disastrous fire by shutting off gas, a handsome gold watch. In same picture are C. E. Rutledge, Santa Barbara manager, Ketz, F. S. Wade, manager, President Bain and F. H. Bivens, general agent.

The gas plant buildings, with the exception of a small meter repair shop, are steel frame and corrugated iron construction, so were not damaged.

The company's distributing system was broken and damaged in a great number of places. From a short distance outside of the plant to State Street, the principle business street, a distance of about 8,000 feet; and in State Street, about 10,000 feet, is a 6-inch cast iron pipe with lead joints. This line was not broken in two in any place. Some of the lead joints, however, showed a giving or pulling; some as much as half an inch. A great many of the joints, of course, were leaking.

There were, however, a great many leaks in the cast iron line caused by service lines which had been tapped straight into the side of the pipe, being pulled away from the main. In one case, where a



Photographs of Charts made by Tycos Recording Thermometer at the Southern Counties Gas Co., at Santa Barbara, Cal.

1½-inch service was tapped into the side of the main, an oblong piece of the main, about 3½ inches wide and 8 inches long, was actually pulled right out with the service.

In every case where the service pipe was fastened to the building by being in a partition or wall, it was either broken off in the street ell or pulled out of the main, even though it was connected to the main with two street ells.

The greatest earth movement, as indicated by upheaved pavements, broken sidewalks and curbs, was in the southwest part of the city. In this section we found nearly all of the breaks which occurred in the distribution main. In one place on lower Bath Street, for a distance of about 100 feet, the pavement, which is concrete base, asphalt wearing surface, showed quite extensive upheaval, raising the pavement as much as 6 or 8 inches in places. A 4-inch steel line with screw joints was broken in two just outside of the coupling at four different places within a space of 200 feet, and the line was apart as much as an inch in one or two of the breaks.

In another place on a 6-inch steel screwed line, several breaks occurred just outside of the coupling, the same as on the 4-inch line. Also, on the 6-inch steel screwed line, a 6-inch cast iron screwed cross with lateral openings plugged, was found broken in two and apart about ¾ of an inch.

In several places, some on the hill section, a considerable distance from the lowland, 2-inch steel screwed lines were found broken at the couplings and at intersections where lateral lines were connected with cast iron fittings.

In one instance a steel welded line was broken in two. In this case the pavement was also badly broken at a point about 50 feet from where the break occurred in the welded gas line. The 6-inch concrete pavement had parted at an expansion seam, one section being forced out and on top of the other, lapping nearly 8 inches. The break in the welded 3-inch line was partially in the welded joint and partially in the pipe (about one-third in the joint and two-thirds in the steel pipe). The tremendous pressure had simply pulled the pipe in two, parting it nearly 3 inches. In one instance an extra heavy cast iron fitting was broken in two on a 4-inch welded line. This was at an intersection where a 2-inch lateral line was connected.

There was discovered and repaired a total of 29 breaks in the distribution mains which were directly caused by the earthquake.

In a very old 3-inch line under a paved street, a section was found nearly 100 feet long that had been corroded full of holes but which, apparently, had not been leaking very much until the earth around the pipe had been disturbed by the earthquake, when very bad leaks developed.

The principle damage caused by the earthquake to the gas distributing system was the breaking of services. Approximately 300 broken services out of a total of about 700 were discovered. The greater part of the breaks were found in the ells at the bottom of the risers near the meter. The breaks were apparently due to the service being held firm in the ground and the swaying of the building and piping caused the break at the rigid turns. Also, a number of breaks were caused by the buildings falling or shifting on the foundations. About 50 services were broken at the main, some giving the impression that the main had moved lengthwise with the street, breaking the service at the street ell or the pipe just outside the street ell. Most of the services broken were 1-inch, with a few 1¼-inch and one or two 2-inch services.

To the People of Santa Barbara:

The recent earthquake caused the pipes and mains of our gas company to be broken and injured to an extent that we cannot now determine. We are endeavoring, as rapidly as possible, to locate and repair all damage to our system. It will naturally take a long time to discover all of the leaks and breaks which have occurred in our system.

At the time of the earthquake we turned off all the gas from the mains of the city, and have since then sent a man to each and every meter in the city and turned off the gas at the meter.

This inspection work is being done by a very large force of experienced men and can all be completed in a very few days. You are urgently requested to wait until these men come to your house.

We now propose to restore gas service as soon as possible, in order to supply the people of Santa Barbara with fuel for cooking.

WARNING

Do not under any circumstances turn on the gas at your meter until the gas man has made an inspection and himself turned it on.

There will unquestionably be many gas leaks in the streets, which we are unable to locate at this time. We urgently request the co-operation of the citizens in helping us return to normal conditions, and should you smell gas, or know of its escaping, please notify the gas office at 16 E. Canon Perdido street, telephone 660, at once.

WARNING

Do not hunt gas leak with fire. Do not take fire near where gas is escaping.

SOUTHERN COUNTIES GAS CO.

It was surprising how very few meters or meter connections were broken.

The natural gas transmission line from Ventura to Santa Barbara, as well as the natural gas industrial lines in Santa Barbara, and service connections from these lines, were not broken; so it was possible to maintain service on this part of the system, which is of recent construction, all of steel with welded joints.

Santa Barbara has two daily newspapers, one an evening and the other a morning paper. Both of these newspaper plants were but very slightly damaged by the earthquake, but they were unable to operate without gas. On the day following the earthquake a temporary line was laid above ground in the gutter from a natural gas industrial line, a distance of about 3,000 feet, to connect with the two newspaper plants, which enabled them to get out the regular paper the second day after the earth-

quake. Through this medium it was possible to advise the people of Santa Barbara of the conditions as well as of the rules and regulations established by the authorities.

The precautions taken to prevent fires and the method of testing before resuming service, are as follows:

An additional operating force of about 50 experienced men was concentrated in Santa Barbara, drawn from all the other districts of the Southern Counties Gas Co. immediately after the earthquake. Each of the seven districts sent one or two light trucks or meter wagons, equipped with tools, while the men came provided with blankets, prepared to camp out. A large dormitory tent and army cots were also immediately sent out from Los Angeles and a camp was established near the gas plant.

The regular operating force in Santa Barbara and these additional experienced men were each given a meter book and were instructed to visit every gas consumer and shut off the gas at the inlet to the consumer's meter. Where a broken or dislocated service was suspected from the condition of the premises, the main was inspected and the service connection either plugged at the main or the corporation cock shut off and a memorandum turned in to the office of every service so shut off. This work of shutting off the gas from all consumers' premises required 4½ days' time, all men working 12 hours each day.

During the time this shutting-off work was in progress, several conferences were held with city officials, including the City Council, City Manager, Chief of Police, Fire Chief, Building Inspectors and Plumbing Inspectors. These men were fully informed of the known conditions and the possible dangers from fire were explained to them. They promised every assistance possible, and upon our suggestion every licensed plumber in the city was deputized a deputy plumbing inspector with authority to repair and approve gas piping.

A meeting was called at the City Hall by the Mayor, at which were present the City Manager, Plumbing Inspector, Fire Chief, all master plumbers and representatives of the gas company. The possible dangers were pointed out at this meeting by the Fire Chief and others, and the co-operation and assistance of all present solicited.

At a meeting of the City Council, on July 3rd, a resolution was passed by the Council requesting the gas company to resume service as soon as the local manager of the gas company deemed it reasonably safe to do so. Attached is a copy of a letter from the City Manager, requesting that service be resumed. Attached also are newspaper clippings of the various notices published in conspicuous places in the newspapers.

The first section to be tested out was what is known as the Montecito District, an unincorporated district adjoining Santa Barbara which has about 1,000 consumers, all domestic. This territory is supplied by a separate line direct from the gas plant. A test was put on this section on July 1st and a 3-inch steel screwed line was found broken in two at a coupling, and three 1¼-inch services broken at the street ells in the main. These were repaired, and service was resumed to the Montecito District on the afternoon of July 1st. Comparisons made of the normal gas sendout during the hours from 2 to 4 A. M., with conditions since resuming service, shows an increase which is attributed to a leakage of about 600 cubic feet per hour.

On the morning of July 4th the plant was put into operation making oil gas. This gas was unpurified and contained a large amount of sulphurated hydrogen which was pumped into the distributing system under 3 pounds pressure, which is the pressure normally carried on the system between 12 midnight and 4 A. M.

The crew of experienced men was scattered over the entire city, each man allotted to a certain area with instructions to patrol and hunt for leaks. The patrolman would mark the location where he smelled the escaping gas. The work of definitely locating the leak was greatly facilitated by observing the upheavals in the pavement, for practically all breaks in mains were very close to where the pavement showed an upheaval. Before excavating, however, they would drive a bar down over the main and locate where the strongest odor came from. Also service connections were located, for, as previously stated, many leaks were found at service connections.

Many reports of leaks were telephoned into the office due to the many notices appearing in the newspapers. (Note: The telephone company did wonderful work in that partial telephone service was resumed within three days after the earthquake.)

On the first test the gas pressure was kept on the line for one hour. The leakage all over the city was indicated by orifice meter readings at the plant at about 56,000 cubic feet per hour.

About ten major breaks and a number of service breaks were discovered from this first test. After the necessary repairs had been made, a second test of about one hour's duration was put on the line in the afternoon of July 5th. This test showed a leakage of about 38,000 feet per hour, and an additional number of leaks were discovered. It was found on this second test that a few consumers had turned on the gas at the meter and were using it; also, that someone claiming to be a plumbing inspector was turning on gas for some consumers and collecting a dollar for this service. This particular condition brought out the very drastic notice from the City Manager.

A number of tests were put on the line during July 6th and 7th, each succeeding test showing a fewer number of leaks, and a decided drop in gas sendout.

The last test was put on at 6 o"clock on the morning of July 8th. This was done to take advantage of the stillness of the atmosphere, which would enable the patrolmen to more readily detect the odor of escaping gas. This test showed a sendout or leakage of about 10,000 cubic feet per hour, or about 6,000 cubic feet per hour more than the normal sendout during the very early morning hours.

(Continued on page 140)

GAS MERCHANDISING

Domestic – Industrial

Ideas for the Man Who Sells

William H. Matlack

WHAT IS BETTER THAN A GOOD WINDOW DISPLAY?

FROM time to time in this department we have had something to say about the value of window displays. We have suggested the use of vari-colored papers, back-grounds that are different, and dwelt on the idea of not over-crowding the windows. This week we are able to illustrate some very beautiful, and so we have been told, effective window displays that have been along these lines.

Window number one was constructed by the gas company at Centralia, Illinois, and is well worth a little study, as it is a very affective way to put over the idea of over-heat control, to display both a right-hand and a left-hand oven and yet stay away from "the cramped" window display so familiar in the days not so long ago. Window number two is one of Sam. Schmulbach's masterpieces in East St. Louis —artistic—let us say it is a beautiful window and one that not only attracts attention but puts over a sales message. Window number three, or we should say windows numbered three, were built by a Granite City, Illinois, gas man. Here the use of a bright back-ground made of gay-colored paper did the trick. Don't all three of these windows suggest something to you? Can't you visualize your own windows dressed up after the fashion of one of them—and watching folks stop, look and linger? Put your stuff out on exhibition and folks will find a way to get their names on the dotted line for it.

The Laclede Gas Light Company, St. Louis, recently devoted one of their big windows on Olive Street to the display of a single gas range. The range, which was set in a back-ground of beautiful drapes, was equipped with a specially constructed oven door that opened and closed to display a small glass sign that told of the adavntage of the oven heat control.

PEPPING 'EM UP

"The Sales Bulletin," issued by the Illinois Power and Light Corporation, has an editor who is constantly on his toes to "pep-up" the sales departments throughout the territory. That he peps 'em up and don't pan them may be easily judged from the following from the May Bulletin:

SALESMEN WHO MAKE GOOD (ELSEWHERE)
THIS BIRD WITH THE MOP OF
INKY THATCH
IS FULL OF PEP AND
HARD TO MATCH
BUT HIS LIFE IS A BUBBLE
HE'S ALWAYS IN TROUBLE
FROM COUNTING HIS CHICKS
BEFORE THEY HATCH
No 1.

Are You Guilty?

A sale is made when the money is paid down, and not before. A promise to buy "next week", or "next time you're around", means very little. Yet far too many salesmen count a casual promise, made to avoid the issue, as a sale, "sealed, signed and delivered". Don't count your chickens before they are hatched! When the prospect promises to buy "next time", make him sign the order, and if necessary date it ahead.

This type of pep message to the boys who are out hitting the pavement and ringing door bells goes over good for the simple reason that it suggests a method of bringing in the bacon.

There may be a few men out selling merchandise and service that are interested in simply putting in time, but just at this moment we cannot recall the name or address of a single gas appliance salesman working on any such basis. To state the matter bluntly, the main reason for the average man going to it is that he wants and needs the "iron men".

MOTION ATTRACTS THEM?

IN East St. Louis, Illinois, there is a barbecued meat merchant who knows his eggs. He exposes his barbecued meats to sales and sells it in large quantities.

This man has constructed a huge white tiled fireplace in his window with a special designed manifold and burner to which he has affixed about twenty-five radiant elements to barbecue fish, fowl, ram, lamb, sheep and mutton. The barbecuing rod is motor-driven and, say, with Gas doing the job of heating, you can bet that his shop is a popular place day and night.

Of course, this type of outfit is pretty large for the average barbecue parlor, but the salesman who runs into such a heating problem need not despair, for the idea may be modified to suit any customer's needs.

We recently heard about a small portable outfit that worked on the same principle, and here is the outfit and the story from The Sales Bulletin of the Illinois Power and Light Corporation:

Barbecued Meats Prepared in New Gas Fired Rotisserie

"Why build a large brick fireplace before which to barbecue meats?"

This is a very natural question for the gas salesman to ask.

Here is a portable **gas fired** barbecue machine which will do all the work necessary for the "Food Parlor."

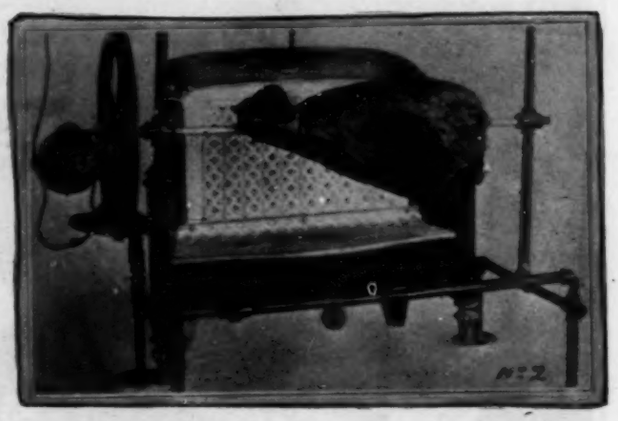
The machine is neat in appearance and is very economical in the use of gas and electricity. In fact, for less than 15c a large ham may be completely barbecued.

It is very interesting to note that this appliance is especially adapted to the busy or crowded store, on account of the small space occupied and the portability of the apparatus.

The gas fired barbecue machine is adapted especially to Summer time use, as the only heat generated is that actually needed, and at the proper time and place, not before or after the cooking is actually being done.

The economy of the installation is a great feature, in that it is necessary only to purchase the appliance. No extra expense is incurred in the construction of brick work, etc.

The ease of operation is to be considered, because at all times the heat is under perfect control. Also, this feature making for **perfect cooking,** with no dirt, dust, ashes or smoke encountered. Only the seductive aroma of the perfectly cooked meat is noticeable.



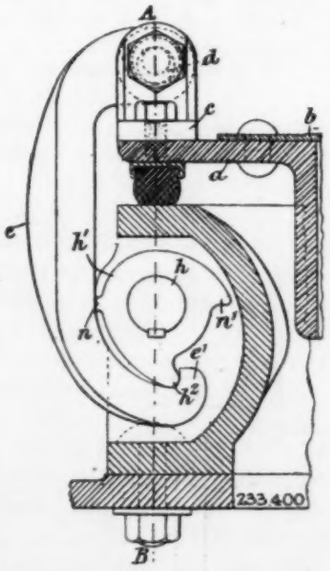
The pleasing appearance of the appliance should appeal to the sense of sight as well as smell, as the appearance of the meat under preparation is actually beautiful. In other words:

"If it is done with heat it can be done better with Gas."

PROGRESS IN GAS TECHNOLOGY
Domestic and Foreign

GAS PURIFIER

THIS invention is a special securing device for the lids or covers of gas purifiers. The rim a of purified lid b carries a number of brackets c on which links e are pivoted at d. A rotatable shaft h is supported in brackets by the purifier, and carries a hub h^1 having a projection h^2. To lock the purifier



lid, the shaft h is turned until the projection h^2 engages the end e^1 of the link e and carries it into a position beyond the axis A B. Packing material m is engaged between the purifier and the lid. When disengaging the locking device, a projection n^1 moves the link e outwards so that it is held clear while the lid is being raised.—(British Patent No. 233,400.)

UTILIZING SPENT OXIDE

THE process is described in German patent No. 410,866 for the utilization of spent oxide. This process consists of subjecting the spent oxide, which contains at least 30 per cent water, including the water of hydration of ferric oxide to the action of chlorine gas. This results in the production of ferric chloride, sulphur dioxide and hydrochloric acid. It is also possible to obtain in this manner a certain amount of sulphur chloride.

A NEW ABSORPTION AGENT FOR CARBON MONOXIDE

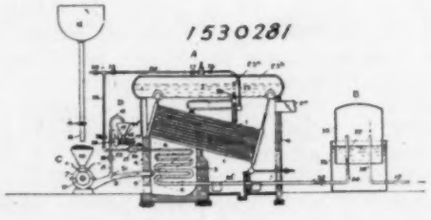
A NEW absorption agent which is used in the analysis of gas for the determination of its carbon monoxide content is prepared in the following manner: 95 grams of 66 degrees Be sulphuric acid is mixed with 5 grams of water, and, after cooling, 5 grams of cuprous oxide are added. To this admixture there are then added 10 grams of naphthol and the resulting mixture is shaken mechanically for several hours and then filtered. The precipitate which is obtained in this manner will absorb 20 volumes of ethylene gas and a slight amount of acetylene. The re-agent has no vapor pressure.

If the cuprous oxide is prepared in a wet method, then a much more rapid absorption can be obtained than with the product that is made by dry method. It has also been determined that the cuprous oxide slime is possessed of definite advantages over the solution of cuprous chloride which has been used up to the present time, although the rate at which carbon monoxide dissolves in the former re-agent is somewhat slower. It makes no difference whether the cuprous chloride solution or the cuprous oxide slime is used one after the other, in order to absorb quickly the largest amount of carbon monoxide in the first bulb and to complete the absorption of the gas in the second bulb.

(For further details see Glueckauf, 1925, page 346.)

MAKING HIGH B. T. U. GAS

A GAS of high thermal value is made directly from solid carbonaceous material in an apparatus which is shown in the accompanying illustration and which is patented in United States patent No. 1,530,281.



The process consists in pulverizing the solid fuel very finely and then mixing it with superheated steam and exposing the mixture to a high temperature. This operation is performed in a coil whose volume gradually increased from end to end.

Handling Ammonia in a Small Gas Works

A description of an installation for making sulphate of ammonia

IT is nearly always true that while a certain operation may be carried out quite successfully both from a technical and an economic standpoint in a large plant of any description, conditions are so different in the small plant that the process in question becomes unavailable for one reason or another. Then again it is also true that it may be perfectly feasible to recover a by-product that is obtained in appreciable quantities in the large plant which may be advantageously situated as far as market is concerned, while the small works may be unable to take advantage of the situation even though it manufactures the same by-product. In other words, it must always be remembered that what goes on the large plant may not be applicable at all to the small works.

This pertains to the gas industry as well as the others. The gas works produces various by-products in addition to gas, and while the large plants are able to make good use of these by-products, it is not always possible for the small gas works to do likewise. A great deal of criticism has been flung at the small gas works for not saving its by-products, but much of that has been unwarranted. It is very often impossible to utilize these by-products because of sound economic reasons even though their technical and industrial importance may be well known and recognized.

Ammonia and Sulphate of Ammonia

It would appear, however, that one by-product of the small as well as of the large gas works could be utilized without any great trouble and made into a product that enjoys considerable use and is an important factor in the chemical and fertilizer industry. Reference is had to the ammonia liquor that is obtained from the gas and to sulphate of ammonia into which it can be manufactured.

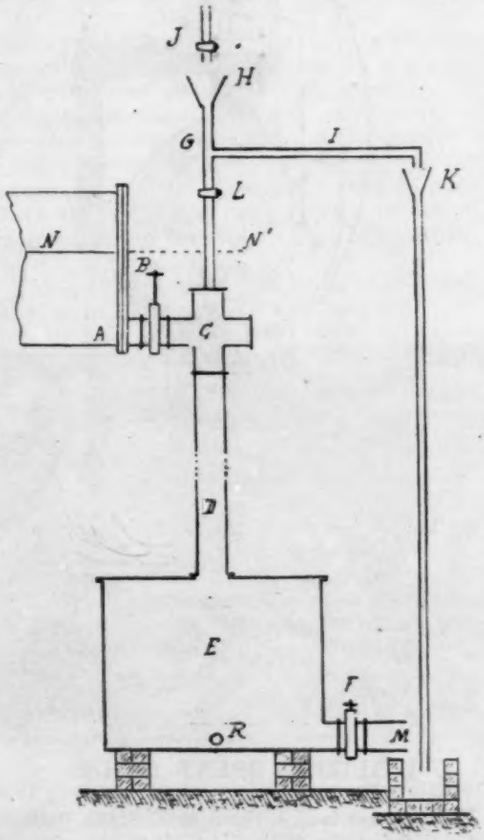
There is no question but that the ammoniacal liquors that are washed from the gas are a source of considerable trouble in the small gas works. It is generally a very difficult matter to throw them away if the gas company is inclined to adopt this method of getting rid of them. Of course it goes without saying that they should not be thrown away unless it is absolutely impossible for economic reasons to make use of them. And if they must be thrown away, it will sometimes be found a difficult matter to accomplish this without incurring the approbrium of one's neighbors.

On the other hand, the ammoniacal liquors that are recovered in the gas works have a certain market as such and possess even greater possibilities as a starting point in the manufacture of an important chemical and fertilizer, ammonium sulphate. There are, of course, various apparatus in which this operation can be carried out, and in the case of large production it is necessary to employ rather costly equipment in order to obtain sulphate at a moderate manufacturing cost. The use of such apparatus is precluded to the ordinary small gas works and it is for this reason that the home-made apparatus which is described in the French journal, Gaz et L'Electricite, 1924, pages 512 ff, is of particular interest to the small gas works.

The aforementioned apparatus is easy to make and costs but little. The illustration shows its essential parts.

Description of the Apparatus

In the first place there is a boiler A which is made of cast iron and has a sheet iron cover with a thickness of three millimeters. This cover is carefully bolted down and a minimum amount of cement is



used in the process. It is absolutely necessary to see that the cover is tight and this is indispensable for successful operation of the process. In the middle of the cover a cast iron pipe is fixed as shown in the figure. The diameter of the pipe is one hun-

(Continued on page 142)

As The Journal Views It

CO-OPERATION BETWEEN PUBLIC UTILITIES

The value of team work in furthering any undertaking is well known, and it is scarcely necessary therefore to discuss this subject in itself, pro and con. Team work has always been productive of far greater results than disjunctive individual efforts, even though the participants have been imbued with utmost zeal and enthusiasm for their work. A single fagot could stand but slight breaking force, according to the well-known fable, but the combination of fagots was able to resist the strongest efforts made to break them.

Thus, it follows that co-operation between the individual members of any industry is bound to redound to the benefit of all concerned. There are many examples of human enterprises in which this has been recognized and in which associations function which tend to correlate the efforts of all the individuals therein so as to attain some goal to mutual benefit and advantage.

In the public utility industry, the conditions are such as to make the matter of co-operation between the various branches of this industry of even greater importance than it is in most any other example. All the public utilities, whether it be a gas company, electric company or a street railway company, have to deal with the public, have to come into contact with public officials. They all have before them the problem of developing good-will in the communities that they serve. They must all strive constantly to obtain proper rates so as to maintain their reputations for giving good service and to safeguard their property. Time and again they must exert every effort to counteract political and other demagogues who desire to destroy what they have spent so many long years in building up. Furthermore, within recent times they all have been looking more and more for their capital to customers that they serve.

All this indicates a community of interest which is stronger in the public utility field than anywhere else. It therefore follows that public utility companies should be vitally interested in co-operating with each other for their mutual benefit and agrandizement. It is evident that through such co-operation results will be obtained in a more satisfactory manner and in one in which permanency will be the dominant feature than if each utility works alone and does not try to correlate its efforts with similar work of the others. There is no reason why this co-operation should not be given and should not increase in the future.

One of the ways in which such co-operative efforts is now being exerted is in informing the public. For this purpose there have been organized state committees of public utility information which are now functioning in a very commendable manner and which have become a real potent factor in disseminating correct information regarding public utilities. The results that have been gained more than justify the work that is being done by these committees and it again bears out in a very emphatic manner the value of co-operative effort.

It is suggested that there are also many advantages to be found in co-operation amongst public utility companies operating in the same territory as far as local management and operation are concerned. There are many ways in which concessions can be made by one utility to the other, with reduction both in expense and time involved. Each utility can in this way be of considerable assistance to the other and in the end all are bound to gain. This is one field in which co-operation between public utilities is of real tangible advantage. Those companies who have practiced it have found that such a spirit of helpfulness goes a long way toward lessening the troubles that beset the public utility companies each and every day of their existence.

"A CHALLENGE FROM INDUSTRIAL GAS FUEL"

IN the May 16th issue of the "Electrical World," New York, was printed an editorial, under the above caption.

"It has been announced that the Massachusetts Institute of Technology is about to establish a graduate course in the industrial applications of gas fuel. In this connection the statement appears that a recent survey of the city of Rochester, taken as a typical industrial community, shows that while the consumption of electricity has increased 120 per cent in the last ten years, the use of gas has in-

creased 170 per cent. Meanwhile manufacturers of gas-fuel equipment are very energetically promoting the gas-fuel idea, admitting that the electric furnace has been extensively successful in displacing the gas-fired furnace in the past, but claiming that because of improvements in gas equipment electricity has no justification today as an industrial fuel. 'Whatever has been accomplished in the past with the electric furnace can now be done with gas—with three times the economy in fuel cost and the same accuracy of control," according to one company's statement.

"All this is certainly a challenge to the central-station industry—not because these statements need be taken as literally true, but because they mark the awakening of a more energetic and effective competition. The advantages of electric heat in industrial processes remain unchanged, but the conditions under which the selling will be done are apparently to be more difficult. And the increased zeal and effectiveness of the gas man's work can only be met by equal or superior skill in salesmanship.

With the improved efficiency of gas-fuel applications to reckon with, there are only two resources which the central-station industrial fuel man may tap for the strengthening of his selling efforts—education and training. Fortunately both are easily obtainable through the industrial heating courses which for several years have been maintained by both the General Electric and Westinghouse companies at their factories. Unfortunately, however, these courses have been very poorly supported, although the N. E. L. A. committee on industrial heating has given generously of time and effort in endeavoring to interest central-station executives in the desirability of sending men for instruction that would fit them for the development of this profitable load.

"Although a considerable number of men have taken the course, members of the committee frankly admit that the results are discouraging. Many companies are apathetic on the subject, although a fallow field for industrial heating lies waiting. There are many cases, also, where permission has been given to power men to enter the school and they have not had sufficient interest and enthusiasm to take two weeks at Mansfield or Schenectady and find out what it was all about.

"But the matter will not wait in the face of the strengthening activity in the gas field. If industrial heating is to be done electrically, then energetic measures should be taken to develop the load now. Those who let the gas man put modern gas-fuel equipment into general local use will find the selling very much more difficult and expensive later on."

This authoritative statement from the leading journal in the electrical industry indicates the rapid strides being made by gas men in introducing the use of gas as a fuel into all kinds of industrial plants where heat is required. In the gas industry the use of gas for industrial purposes is considered almost in its infancy. The above editorial should encourage the men in charge of the industrial fuel branch of the gas industry to increase their efforts along this line.

THE EFFECT OF THE SANTA BARBARA EARTHQUAKE ON THE SO. COUNTIES GAS CO.

(Continued from page 134)

With this amount of leakage it was deemed safe to begin turning on gas to consumers in the city. The same force of experienced men was divided into crews of 6 to 8 men, under a Santa Barbara man who was familiar with the district. The man in charge of each crew was given a meter reader"s book which had the address, meter number and size. This man went along with the crew and issued to each man the acknowledgment of turn-on which had been especially made for this work, copy of which is herewith attached; and on which was written in the addres sand meter number. The men were all instructed to make a 5-minute observation of the test hand of the consumer's meter. If the test hand did not move, he would then light and test one burner on an appliance and have the party in the house sign the slip as O.K. If the test hand showed any movement, a leak in the house piping was suspected and the consumer was given a notice to have the piping inspected. This form of notice was printed in triplicate; the original copy left with consumer, the duplicate attached to the turn-on acknowledgment and the triplicate copy sent to the City Plumbing Inspector, who had previously advised of this method. A copy of this notice is also herewith attached. The work of turning on the meters and testing was completed on July 11th, so gas service was practically restored to normal in the City of Santa Barbara, excepting, of course, those buildings which had been wrecked, in 13 days after the earthquake.

During the time work was in progress of turning on the consumers' meters, the men were instructed to be constantly on the look-out for leaks. Some small leaks were discovered and repaired, nevertheless the sendout during the early hours of the morning is still about twice what it was before the earthquake. This increase in leakage is doubtless made up of a large number of small leaks at service connections and possibly elsewhere, which can only be found and remedied after a long campaign of investigation. In a preliminary way our observations as to the effect of the earthquake on the distribution system at Santa Barbara can be stated as follows:

No. 1. Bell and spigot cast iron pipe properly laid with lead joints, is sufficiently flexible to stand an earthquake of considerable intensity without breaking.

No. 2. Screwed steel or wrought iron pipes show a serious tendency to pull apart and break in an earthquake. This break usually occurs in one of the few threads remaining outside the coupling after it is made up.

No. 3. Welded steel or wrought iron lines will stand an earthquake of considerable intensity without pulling in two. Cast iron fittings must not, however, be used in such welded lines.

No. 4. The greatest danger of leakage in an earthquake is at the point of connections between service lines and mains, and at ells on the service risers. Exery effort should be made to make these connections strong and as flexible as possible.

INDUSTRIAL GAS LESSONS

IF IT'S DONE WITH HEAT — YOU CAN DO IT BETTER WITH GAS

Lesson No. 83

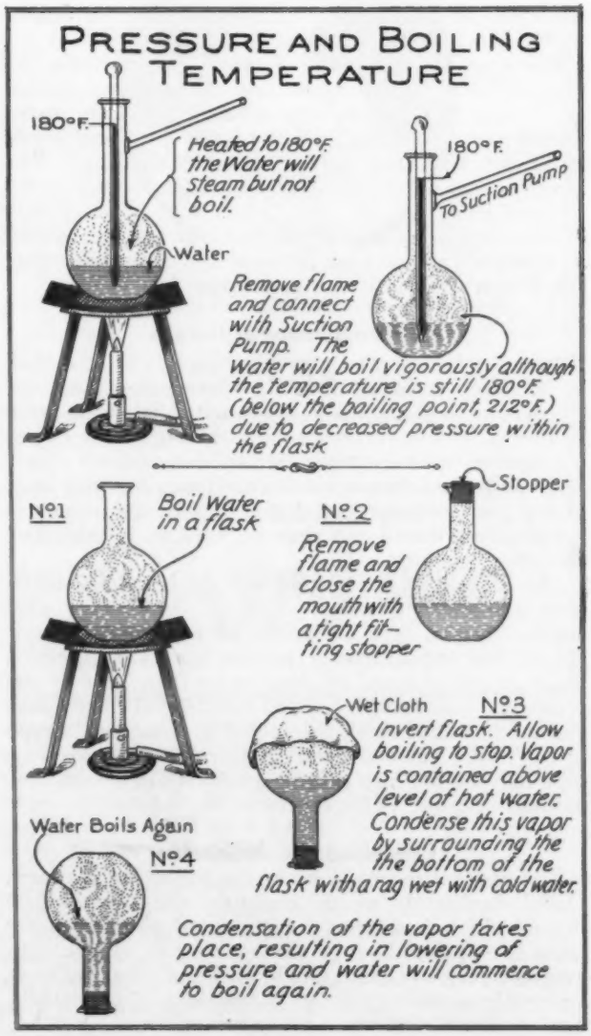
Heat and Change of State

AN EXPERIMENT IN EVAPORATION

A simple experiment which will illustrate this phenomenon is to take a flask filled with water and heat the same to a temperature of 180 to 190 degrees F. The water will steam at this point, but it will not boil. Then attach the mouth of the flask to the receiver of an air pump and apply a vacuum to the flask. The immediate result will be a violent boiling of the water, as soon as the pressure is lowered far enough.

Another experiment consists in filling a round bottom flask with water and making the water boil. The air is expelled and replaced by steam and then the flask may be corked and removed from the fire. The flask is inverted and the bottom is cooled by surrounding it with a moist cloth. The lowering of the temperature in this way causes a condensation of the vapor and this condensation has the effect of reducing the pressure within the flask. Due to this reduction in the pressure above the surface of the hot, but not boiling liquid in the flask, the liquid which may have fallen considerably in temperature by this time is made to boil again.

There is a regular relation between the boiling point of a liquid, such as waetr, and the pressure of the atmosphere. In fact, it has been common to use this relationship in determining the height of mountains. It is a fact that as the distance of a mountain peak increases above the sea level, the air at that peak becomes more and more rarified and the pressure is correspondingly decreased. Hence it is found that water will boil on top of a mountain peak at a lower temperature than it will at the bottom, due to the decreased air pressure. It is, therefore, possible to tell the height of a mountain peak by determining the temperature at which water boils at its summit and reading off the corresponding elevation above sea level from a table.


PRESSURE AND BOILING TEMPERATURE
180°F.
Heated to 180°F. the Water will steam but not boil.
Water
180°F.
To Suction Pump
Remove flame and connect with Suction Pump. The Water will boil vigorously although the temperature is still 180°F. (below the boiling point, 212°F.) due to decreased pressure within the flask
Nº1
Boil Water in a flask
Nº2
Stopper
Remove flame and close the mouth with a tight fitting stopper
Wet Cloth
Nº3
Invert flask. Allow boiling to stop. Vapor is contained above level of hot water. Condense this vapor by surrounding the the bottom of the flask with a rag wet with cold water.
Water Boils Again
Nº4
Condensation of the vapor takes place, resulting in lowering of pressure and water will commence to boil again.

HANDLING AMMONIA IN A SMALL GAS WORKS

(Continued from page 138)

dred millimeters. Here again it is important to see that the joint is made perfectly tight. This pipe is connected with a lead pipe, eighty millimeters in diameter, and leads to the saturator.

The saturator B, which is composed of a lead pipe, sixty millimeters in diameter and which is placed in the bottom of a lead pan H, is filled with 60 degree Be sulphuric acid. The aforementioned pipe is pierced with a number of openings which are on the top of the pipe, as seen from the figure, and which extend for a distance of eighty centimeters, there being twenty to twenty-five of these holes, each five millimeters in diameter, over that distance. The end of the pipe is closed.

A drain tank C is placed over the saturator and from this drain or dropping tank the dilute sulphuric acid, which is to combine with the ammonia in order to form the sulphate, is fed into the saturator.

The apparatus which is described in this installation is very simple and any gas works can easily erect this apparatus from equipment that is available in the works. It takes no great skill to set it up.

For example, the boiler A may be made from the old shell of a station meter and the openings in this shell may be closed very effectively with plates which are riveted or bolted to the shell and made gas-tight with the aid of suitable packing. The cover to the apparatus may be made of sheet metal or cast iron.

An iron pipe G is fixed to the cover and this serves as a safety valve in case the contents of the saturator are blown over into the apparatus A.

Further Structural Details

In order to heat the boiler A cheaply and effectively it is well to locate it in the flue leading from the gas works to the stack. This sort of an installation is shown in the accompanying sketch. If it is impossible to operate the boiler in this fashion a setting can be built for it from old refractory brick used in the gas works proper and a furnace arrangement constructed, which can then be fired in suitable and economic manner.

The saturator B and the feed device C are made with a wooden exterior which is lined inside with sheets of lead of a thickness of three millimeters. An auxiliary apparatus is the cast iron tank D, which has a capacity equal to or greater than that of the boiler A. This tank is located a little above the boiler and is connected with the latter by means of a pipe I which is furnished with a valve F. The overflow pipe may be led into a tank which is filled with ammoniacal liquor. This refers to the pipe G.

Operating the Apparatus

The apparatus functions in the following manner: The boiler A which contains the ammoniacal liquor which has been concentrated to the proper point is emptied through the opening F. These concentrated liquors can then be dumped into the sewage without incurring the complaints of the neighboring establishments and communities.

The box D which contains the liquor which is to be treated and which has the same capacity as the boiler A can be emptied into the boiler A within a few minutes after opening the valve F. After this operation is completed, the valve F is closed again.

On the other hand, if the tank D has a capacity which is greater than that of A, then it will be sufficient to locate the overflow pipe J at such a height that the volume of the liquor in D will be equal to the capacity of the boiler A or slightly less than this capacity. This then means that the danger of filling the boiler too full is avoided. There thus remains several cubic centimeters of space above the level of the liquor in the boiler A so that the ammonia gas can escape without difficulty from the entire surface of the liquor.

Testing the Mother Liquor

Each morning the first thing to do, before charging the boiler with ammoniacal liquor, is to test the mother liquor in the saturator B. If the test shows that the gravity of this liquor is below 45 degrees Be, it is necessary to add pure acid in order to bring up the concentration. It is never advisable to add the water to the acid, for if this is done there is danger of the heat developed in the admixture of sulphuric acid and water causing a considerable quantity of the acid to be ejected from the tank with the attendant danger to the operators.

Nevertheless, as it is very advisable to take as much precaution as possible in working with so concentrated an acid as a 60 degrees Be sulphuric acid, it is necessary to carry out the mixing operation in an apparatus in which carboys are moved back and forth. A pan which is formed of two circular pieces of iron bolted together with four bolts receives the carboy and holds it tight. This basket carries two rockers which are made in the form of a U-shaped band of iron. The carboy carrier is of very common type and makes it easy to handle the sulphuric acid in the carboys.

After the proper amount of acid has been added to the saturator, the boiler is emptied, and then filled with liquor that is to be concentrated. The salt that separates out is removed with the aid of a wooden shovel. The salt is then placed in a draining apparatus and the mother liquor is recovered. This part of the process lasts but for one hour.

Results Obtained

The best results are obtained when the ammoniacal liquor in the tank has a concentration of 2.5 to 3 degrees Be. This is easy to obtain by regulating the amount of water that is added to the washers during the gas making process.

It may be mentioned that there will sometimes be found both ammonium carbonate and ammonium sulphide in the ammoniacal liquor and as these compounds are very volatile they will also be driven over into the sulphuric acid saturator as well as the ammonia gas itself.

This simple method, to be sure, does not allow the recovery of the ammonia, known as fixed am-

monia, that is, ammonium hyposulphite, which cannot be distilled out of the ammoniacal liquor by simple boiling. In order to recover this ammonia it is necessary to carry out the process of boiling in the presence of alkalies. But this involves a certain complexity of operation, which may not be suited for the average small gas works, and as the amount of fixed ammonia is not very large, it may just as well be left in the residual liquors.

It has been estimated that an ammoniacal liquor which has a concentration of three degrees Be will yield from twenty to twenty-five kilograms of sulphate of ammonia per cubic meter volume. Furthermore, it is also estimated that it will be necessary to treat four times the weight of ammonia in solution in the 60 degree Be acid. A cubic meter of the ammoniacal solution, at 3 degrees Be, will therefore require from eighty to one hundred kilograms of 60 degree B sulphuric acid.

These are only approximate figures and in certain cases the actual operating figures will be better and in others worse. The important point to remember is to have the concentration of the ammoniacal liquor in the neighborhood of 3 degrees Be. When the concentration of the liquor is less than this figure, too much water must be brought to the boiling temperature, the solution in the saturator becomes too quickly diluted with water vapor from the boiler and sulphate will not be produced.

AMERICAN UNIVERSITIES TO TEACH MANAGEMENT OF GAS COMPANIES AND OTHER UTILITIES

As a result of the attention today being paid to the securities of public service companies and the demand by these utilities for men especially educated for utility work, the educational institutions of the country are recognizing utilities in their curriculum as never before, and that recognition is continually growing.

Special courses in gas engineering are being offered at several institutions, notably the University of Illinois, Ohio State University, University of Michigan, University of Wisconsin, University of Tennessee, Johns Hopkins University and Massachusetts Institute of Technology. Courses in public utility management or public utility economics have also been established at Harvard University, Northwestern University, State University of Iowa, Indiana University, University of Illinois and University of Pennsylvania.

A five weeks' summer course on gas production, distribution and utilization is being offered at Columbia University, which, with the co-operation of the American Gas Association, is also planning a two-year correspondence course on this subject. Another correspondence course is being prepared by the Pennsylvania State College on public utility economics. Gas meter short courses for gas company employees are offered yearly by Purdue University, University of Illinois, Iowa State College and the University of Oklahoma.

DOING BUSINESS IN HILO

(Continued from page 130)

as readily as within the store, as it is made close to the plate glass window. The white enamelled range is set on a little white platform, where it looms up to good advantage. Displayed about the room are other stoves in both grey and white enamel.

The Rusting Problem

On account of the great amount of rainfall, everything here rusts out in an incredibly short time, so we advise the purchase of enamel ranges exclusively. We feel so strongly on the subect that last year we sent out a letter to all our customers, advising that we would take all of their old ranges, and offering them a substantial price for them if applied to the purchase of one of our new enamel ranges. The call met with very good results and a number of old style ranges were turned in. We went over them, and renovated those that were worth while, which we sold very cheaply, and the others we consigned to the junk heap, feeling that the good-will engendered by being allowed to purchase a new enamelled range at a substantial discount balanced the loss we sustained on the stoves turned in.

Every Housewife Knows that GAS is Cleanest, Cheapest and Quickest in the Kitchen

COOK WITH GAS

IN YOUR NEW HOME

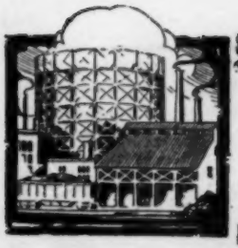
Watch for our series of Advertisements on the service of Gas starting next Friday and running every Friday following on the Woman's Page of The Tribune-Herald

HILO GAS COMPANY, LIMITED

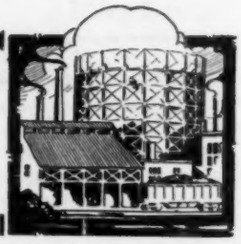
20 Waianuenue Street

The Gas Plant Itself

Our gas plant is located only a short distance from the city. It has a capacity of about 300,000 cubic feet in 24 hours. We have fifteen miles of main, and a mile and a quarter were laid last year. While it is extended at present to only two of the sugar camps, we expect additional mains to be laid this year. In fact, the business of the company has shown a steady increase for the last five years.



NEWS OF THE GAS INDUSTRY



Gas Company in New Offices

The Greenville Gas Company is now transacting the affairs of the company in their new headquarters, just west of the former office.

The former and new buildings have all undergone a complete change and splendid facilities installed for the office force. Display rooms showing the various gas cooking and heating appliances are artistically arranged and further carried out with color schemes and decorations.

L. K. Wise, manager, said: "The increase in office and display rooms became a necessity in order that we might keep abreast with the fast-growing increase in our patronage. In order to take care of the stock in trade, it was necessary to have more display room that we could show our patrons just how economical and clean the various gas appliances could be operated.

"We have had a tremendous increase in gas consumption and the sale of appliances has also far exceeded our expectations and it is our aim at all times to give the very best service possible; to do this, there is no excuse too great, that we might meet the demands made upon our plant.

"A model room is shown, which is a most inviting and pleasant arrangement. The public in general is invited to visit our new offices and see the various displays."

York Gas Company Sold

York, Pa.—The York Gas Company, furnishing fuel to residents of this city since 1849, has been sold to the Continental Light & Power Company, managed by the firm of Stevens & Wood, New York City. The stockholders are being paid $57 a share. This stock was sold on the market recently at $45 a share. The present local management, it is said, will not be disturbed.

$300,000 Building Project Planned by Gas Company

Previdence, R. I.—A service building, boiler house, garage and stable will be erected by the Providence Gas Company at an aggregate cost of approximately $300,000 on property owned by the company at Potter Avenue and Dexter Street. Plans and specifications are being figured on by contractors.

All the buildings for which Jencks & Ballou, Grosvenor Building, are the engineers, will be of mill construction with tar and gravel roofs.

The service building is to be three stories in height and 228 by 83 feet in dimensions. The boiler house adjoining is to be 50 by 80 feet, one story in height. The garage is to be 290 by 85 feet. The stable will be two stories and will cover an area 48 by 82 feet.

Gas Company to Lower Its Rates

Knoxville Gas Company, Knoxville, Tenn., through its attorneys, forwarded by mail a formal application to the Tennessee Railroad and Public Utilities Corporation for reduction of gas rates in the City of Knoxville.

An initial reduction of five cents per thousand cubic feet is applied for in the petition. H. G. Bonner, general manager, in a statement issued recently in regard to the reduction in rates, said:

"If the Knoxville Gas Company is to keep pace with the rapid growth of Knoxville and adequately serve Knoxville people with dependable gas service at rates that will enable them to utilize gas service to the greatest possible extent, it must do three things:

"1st. Enlarge and improve its facilities for making and distributing gas so as to provide adequate and dependable service.

"2nd. Largely increase its present volume of business so as to reduce its costs by gaining the efficiencies of large scale production.

"3rd. Lower its rates as conditions justify it so as to enable it to still further increase its business and hence still further reduce costs and rates.

"This program is practically prohibited by the existing order of the state utilities commission in our case, by which the rate for gas is fixed at the present rate and the earnings of the company are limited to 7½ per cent on a valuation of the company's property fixed by the commission.

"The company has been unable to earn, with the present gas rate, the 7½ per cent return allowed and to increase the rate for gas above the present rate would probably decrease the company's earnings rather than increase them because a higher rate would decrease our sales.

"To overcome these difficulties and to make it possible for us to follow out the program above mentioned, we have formally petitioned the State Utilities Commission to permit us to make an initial reduction of 5 cents per thousand in the price of gas to help us in our efforts to increase our sale of gas. We are also asking that we be permitted to share with our customers in any increased earnings we can make at rates lower than the present rate."

Personal

The Uehling Instrument Co., Paterson, N. J., has recently appointed two new southern agents to handle their line of CO_2 recorders and other power plant instruments, namely, John C. Candler, 315 Glenn Bldg., Atlanta, Ga., to cover Georgia, Eastern Tennessee and the southern half of South Carolina, and Charles M. Setzer of Charlotte, N. C., to cover North Carolina and the northern half of South Carolina.

Brooklyn Union Gas Club Holds First Outing

The first outing of the Brooklyn Union Gas Club was held at the Athletic Field of the Brooklyn Union Gas Company at Canarsie Lane and Ditmas Avenue on Saturday, August 1.

The company owns thirty acres of land at this place and a portion of it has been set aside for the use of the men.

Upwards of 2,000 employees of the company attended the affair. A part of the field was arranged as a country fair with a midway, about which a number of booths were arranged. In the booths were various games, each one run by one of the departments of the company. In the centre was a large tent with a capacity of 1,500 and in this tent a vaudeville show was given at four o'clock.

At the close of the show a well-cooked chicken dinner was served in building number 23 to which all of the picnickers sat down. The spacious floor had been transformed into a restaurant for the occasion.

The whole grounds was decorated with bunting, pennants and flags which were hung over roadways in an artistic manner.

The picnickers were carried to the place in automobiles and motor busses. The affair started at noon with a box luncheon.

After the luncheon the ceremonies around the athletic field were in order. Henry E. McGowan, secretary of the company, ran the American flag to the peak of a large flagstaff. E. H. Marsh, president of the club, unfurled the club banner amid the cheers of the men as it was run swiftly to the top of the flagpole.

John T. White, assistant secretary, made a few remarks and introduced Clifford E. Paige, vice-president of the Brooklyn Union Gas Company, who made a short speech complimenting the club on giving such a successful affair.

Mr. Paige then turned to Oswald Woller and made a complimentary address during which he presented Mr. Woller with two shares of stock in the Brooklyn Union Gas Company. The gift was given to Mr. Woller as a token of appreciation of his services as president of the Progress Club, which has been succeeded by the Brooklyn Union Gas Club. The latter organization is formed of all the clubs in the Brooklyn Union Gas Company system and proclaims the spirit of co-operation which now prevails. The club during the winter will run various entertainments. An educational programme for all of the people of the Brooklyn Union Gas Company has also been prepared.

E. H. Marsh, President Brooklyn Union Gas Club

After the ceremonies were over, the athletic events were run off, and aroused a great deal of interest. The first event was a seven-inning baseball game between the Meter Repair Department and the team of the Williamsburgh Works. It lasted seven exciting innings. At the completion of the game the score was 6 to 4 in favor of the Meter Repair Department.

A 100-yard dash was the next event. This was won by D. Fieger; P. Brogan, second, and F. Melville, third. Next came the fat man's race. Each contestant had to weigh 200 pounds or better. This was rather a puffy affair, but the fat boys showed some speed in going about the track. It was won by J. Oronoff with Wilbur Choate steaming in second and J. Bradley was a good third. In the quarter-mile run H. Warwick won; J. Clyde was a close second and W. Swartz, third.

The running broad jump was captured by Eugene Kelly, and J. Clyde made the best standing broad jump, with Ivan Harding and Russell Van Staudt, second and third. In the running broad jump J. and G. McCabe won second and third prizes. G. Kestel excelled in putting the shot and William Hayes and G. Devine were second and third, respectively.

There was a spirited relay race between teams of various departments of the company. The race was won by the following team: J. Weber, B. F. Ferrani, H. Warwick and J. Clyde.

That the gas industry is a healthy occupation was shown by a number of active old fellows who took part in the service races. Denny O'Brien was the swiftest old-timer on the grounds. He has worked in the company for upwards of thirty years and he led everybody in the half-mile running match by several lengths; P. McEvoy, second, and P. McIntyre, third.

C. Botsch won the 25-year race with G. McVey second, while P. McIntyre, who took third place in the 30-year race, also captured third place in this event.

It was with difficulty that the Athletic Committee kept McIntyre out of all the youthful events. The 10-year service race was won by M. McElearney with W. Henderson, second, and P. H. Brown, third. The winners all received valuable prizes.

All of the premises, especially the midway, was exceedingly gay with bunting and pennants. There were "peep shows", "tests for strong men", "break the crockery shows", "hit the cat" and "swing the mallet".

In one section of the midway was a miniature golf link, where the golf enthusiasts enjoyed themselves. There were various booths in which drinks and frankfurters could be had.

The Thirteenth Regiment Band was stationed in the midway and gave a fine band concert all through the afternoon.

When the dinner call sounded at six o'clock everybody had a good appetite and was in a condition to enjoy the dinner. It was served by Kieffer, the well-known caterer.

A great deal of credit is due Harold F. Coleman, social vice-president, Alfred E. Gledhill, athletic vice-president, and Secretary Fred. Roesch, who managed the entire affair.

The officers of the club are: E. H. Marsh, president; E. J. Devlin, educational vice-president; H. F. Coleman, social vice-president; A. R. Gledhill, athletic vice-president; J. P. Conklin, secretary; E. L. Shultz, treasurer; F. M. Roesch, recording secretary.

Sales Plan Increase Service to Consumers

Wilmington, Del. — The announcement by the Wilmington Gas Company that it would accept old gas ranges in trade for new ones has brought a magnificent response from many score of households in this city and suburban sections covered by the local utility corporation. The offer is on for a limited time.

One of the important facts developed through the exchange is that many of the old ranges traded in for new ones possessed holes that not only cut down the power of the gas in heating but also caused the consumer to lose money through this loss. The holes were tiny and concealed from the housewife, and not until after the ranges were carefully examined by experts employed by the company were they discovered.

One important feature in the trading arrangement is that those who cannot pay cash down for the new range, minus the amount allowed for the old one, can pay for it in easy monthly payments, so that it is not necessary to pay all at once. The new ranges are the best that can be procured in these days, which means they have many years of steady, consistent usefulness for the owners.

F. T. Hulswit Acquires Brooklyn Borough Gas

Frank T. Hulswit, president of the United Light & Power Company, has acquired the Brooklyn Borough Gas Company as the first step, it is said, in plans for a series of such deals. The transaction, involving a fast growing utility serving a large community in the metropolitan area, entailed the purchase by Mr. Hulswit of the entire common stock holdings of Percival E. Foerderer of Philadelphia; J. J. Bodell of Providence, R. I., and their associates at $107.50 a share. It is said that virtually all of the minority has also been purchased at that figure.

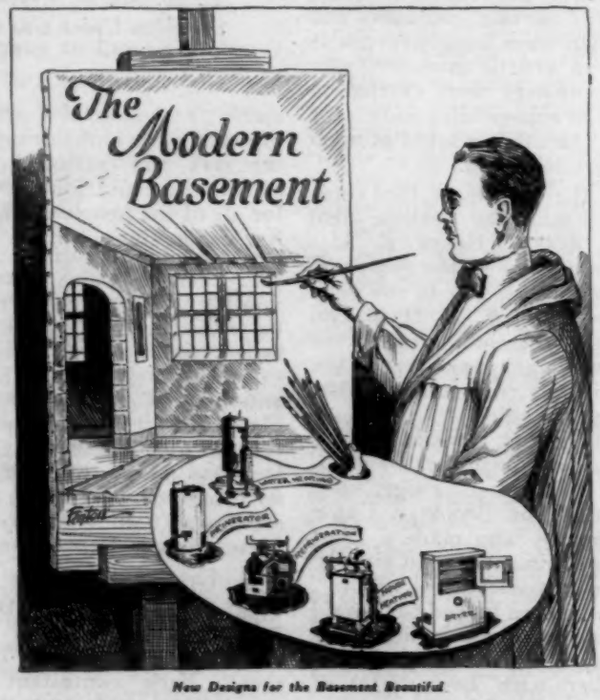
The Brooklyn Borough Gas Company, whose affairs have been under the direction of Miss Mary E. Dillon since she became general manager in 1919, serves the entire 31st Ward of Brooklyn from Kings Highway to the ocean front and embraces the Coney Island and Sheepshead Bay districts, two of the fastest growing sections in the borough.

The company has made rapid strides in the last few years, having expanded its facilities to keep pace with the increased demand for service. On June 30 last the territory had a population of close to 200,000 and the company was serving more than 37,500 consumers, an increase of more than 7,400 compared with the previous year.

"Good Housekeeping Magazine" Features New Ray-Glo Colonial Period Heater

The J. H. Grayson Mfg. Co., Athens, O., manufacturers of the Ray-Glo line of room heaters, announces that "Good Housekeeping Magazine," in its August issue contains an article featuring their Ray-Glo "Colonial" period heater. This kind of material in such a magazine has special interest to the entire gas industry in its educational value in familiarizing the public with the various uses for gas in the household.

The Grayson Company will send to gas companies, for the use of their sales people, reprints of pages featuring the Ray-Glo "Colonial" model, as the prestige of "Good Housekeeping," especially among women, will influence many sales of radiant heaters this fall.



New Designs for the Basement Beautiful

Cover Design on August 1st Issue of the Peoples Gas Club News, Published by the Peoples Gas Light and Coke Co. of Chicago

Extensions Outlined in Stupendous Development Program Now Under Way by Florida Power & Light Co.

Miami, Fla.—Completion of the 1925 extension program which is being carried out by the Florida Power & Light Company in Miami's gas plant will provide for this city a public utility that will serve a population of 500,000 persons, by running 20 hours a day, it is announced by W. J. Van Court, superintendent and general manager of the gas department of Florida Power & Light Company. Equipment valued at $750,000 is being added to the plant this year in addition to approximately $650,000 that was spent last year in the addition of equipment and extension of mains.

By the first of next year this will bring the total investment in Miami's gas plant to $2,600,000. Besides this Mr. Van Court estimates that at least $500,000 will be needed annually for the next five years.

Outstanding among the 1925 extension program is the erection of a new building to cost $56,000, a new nine-foot generating set at $42,000 and auxiliary equipment at $84,000. Re-building of the old generating set will require $18,700. A new 400-housepower boiler and feed water heater is being installed at a cost of $54,000. Changes in the relief holder and pipe connections, necessitated by the improvements, will cost $57,000 more.

A new feeder main is being laid that all of Miami instead of only the downtown districts may be provided with low pressure gas. This main will cost $41,400. In order that street paving which is being laid this year may be made permanent, $258,000 is being expended in mains and laterals, which are preceding the laying of paving. Laterals are being extended from the mains to each lot whether or not it is now occupied by a building. The company is buying 3,000 meters and 1,500 governors to reduce the pressure at the meters. These will cost approximately $28,500. Additional working equipment for office and street work amounts to $16,000.

Of the three generating sets, which the completed extensions will afford, two will have a daily capacity of 2,000,000 cubic feet of gas each, and the third will be capable of generating 1,000,000 cubic feet per day. The plant has a storage capacity of 1,250,000 cubic feet, 1,000,000 feet of which is provided in the new holder and 250,000 feet of which is held in an old holder for emergency purposes.

A 24-inch pipe carries the gas from the water cooler across the railway through the battery of three purifiers to the main holder. The shell of this holder contains 2,840,000 gallons of water, which seals the tank to prevent the escape of gas. In order to maintain pressure in the holder, it is composed of three shells, which lift as it is filled with gas. By a unique conservation of space, many barrels of oil are stored in this holder. A metal hoop, several feet high, is placed in the water shell on legs so that the top is slightly above the water level. The oil is then pumped into the ring and is kept in place by the pressure of the water, which it has replaced.

Approximately 14 tons of coke are now being used each day in the manufacture of the gas. This amount is increased to as much as 60 tons during the height of the winter season. To the blue gas generated from the coke is added an average from 4,000 gallons of distillate fuel oil in a spray to give the gas its required fuel value of 550 British thermal units.

Among the new equipment is an electric meter, which measures all the gas as it passes from the generator into the holders. A recording calorimeter is also attached to the main to register automatically the British thermal units of gas.

The washer cooler through which the gas is passed after it leaves the relief holder, is one of three of its type in the country, says Mr. Van Court.

A new tar well has just been completed at a cost of $12,500 as the old well was not only too small but it occupied the site of the addition to the present building, which houses the generating sets. The new building is being extended north of the old structure.

Besides the regular annual payroll, construction workers require a payroll of $406,000 a year. The gas mains, of which more than 94 miles have been laid in Miami, extend north to Lemon City, west to Grove Park and to 17th Avenue in Riverside and south to the city limits.

The mains are of cast iron pipe. The gas mains of the city range from 2 inches to 16 inches in diameter. Mr. Van Court estimates the cost of laying these mains in Miami to range from $2 a foot for the small size to $5 a foot for the largest, including the cost of the pipe.

Mains are being extended into all districts where the number of meters that can be attached will make the extensions practicable. Gas is now supplied to more than 6,400 consumers, which equal two-thirds of the population of the districts served by the mains. Mains have been frequently extended into residential districts, says Mr. Van Court, upon the promise of enough meters to make the extension practicable, whereupon the extension increased the realty value while the promised attachments were not made.

Another feature of the gas plant's extension program is beautification of the grounds.

The generators, although constructed of three layers of the most durable fire brick obtainable, must be relined on an average of each eight months. When the generator is relined, the old bricks have been melted together by the intense heat, which ranges 2,800 degrees to 2,900 degrees Fahrenheit.

New Purifiers for Richmond, Ind.

The Richmond Light, Heat & Power Company, Richmond, Ind., is adding to its present purifier capacity and has placed its order with the Western Gas Construction Company for additional purifiers with connections. These purifiers are to be equipped with the "Western" Type DF Reversing Valves.

Southern Gas & Power Corp. Offers Course in Gas Engineering

Gastonia, N. C.—A free Johns Hopkins University course in Gas Engineering has been established by the Southern Gas & Power Corporation, owners of numerous public utility properties, including the Gastonia & Suburban Gas Company.

In announcing this free scholarship, Mr. Walter Whetstone, president of the corporation, gives the following conditions:

1. The scholarship is open to any resident of Gastonia or of any of the cities or towns in which the Southern Gas & Power Corporation operates.

2. He must meet the University requirements, but may qualify for admission either by graduation from an approved high school or by examination.

3. The scholarship is worth $350 a year, and will cover tuition charges, laboratory fees, and other incidental University expenses up to that amount.

4. The appointment will be for one scholastic year, but the holder will be eligible for reappointment from year to year if he conforms in character, industry and ability with the standards and requirements of the University.

5. In order to secure the scholarship, application must be made both for entrance to the University and for the scholarship, on blank forms which will be furnished by the Educational Department of the Southern Gas & Power Corporation, Room 1512, Fox Building, Philadelphia, Pa. Applications will be considered only after the applicants have satisfied the requirements for admission.

6. In case of a number of qualified applicants for the scholarship, the choice of candidates will be with the faculty of the Johns Hopkins University.

7. Applications should be made at once, as the scholarship is to start with the opening of the University this fall.

So great has been the growth in all branches of the gas industry in the United States during the ten years just passed that the various large utility companies are experiencing difficulty in securing properly trained men to fill responsible positions.

The Johns Hopkins University of Baltimore, Md., one of the world leaders in scientific and industrial developments, recently recognized this and established a Department of Gas Engineering. This course ranks equally with electrical, mechanical and civil engineering in the University studies.

Some idea of the magnitude and solidity of the growth in the gas industry is obtained from tables recently published by the American Gas Association. The figures, covering the consumption of gas by American industries, are almost startling as a sidelight upon our modern advance in manufacturing methods. In 1910 American industries consumed only 7½ billion cubic feet of gas in all lines of manufacture, while in 1924 they used more than 101 billion cubic feet—an increase of 1,200 per cent in fourteen years. The household consumption had likewise increased.

University Equipment

The Gas By-Products Laboratory of the University is probably the only complete plant of its kind in America and is available for research work for students desiring to follow Gas Engineering. It includes a 400-pound retort, hydraulic main, condensers, tar extractor, scrubbers, purifier, tar and ammonia tanks, and gas holder. Meters, calorimeters, and complete equipment for the examination and analysis of fuel, gas and by-products are available in the laboratories of the department.

Graduate Scholarships

Where possible, the undergraduates are encouraged to continue their studies in the graduate courses. These courses are planned to develop fitness for independent study and investigation and offer opportunities for research and experimentation in the solution of chemical and physical problems in Gas Engineering. The University itself, to encourage advanced study in research and engineering, offers four graduate scholarships to students in the schools of engineering. These scholarships cover all tuition and laboratory fees. Candidates having their Bachelor degree and being desirous of pursuing advanced study and research in gas engineering have an equal opportunity with advanced students in other departments in the schools of engineering to secure these scholarships. Application for these will be received at any time by the University.

Positions for Graduates

The Department of Gas Engineering at the Johns Hopkins University makes an especial effort to maintain intimate contact with the various gas and fuel industries in and about Baltimore, which has long been a center for advanced developments in this field. Co-operative arrangements permit the use of the facilities of several of these industries for instruction and research. These contacts and the active co-operation of the Southern Gas Association, which initiated the establishment of this course and contributes financially to its support, insure to graduates consideration of their qualifications for filling important positions in the gas industry.

Commission Authorizes Bridgeton Gas Issue of $194,000

Trenton, N. J. — The Public Utility Commission recently authorized an issue of $194,000 in capital stock by the Bridgeton Gas Light Company. The money from the sale of the securities will be used to improve the company's property.

Muskegon Concern Buys Heights Gas Company

Muskegon, Mich.—The Muskegon Traction & Lighting Company has purchased the property of the Muskegon Heights Gas Company. The one plant will serve both Muskegon and Muskegon Heights in the future.

Gas Business Is Necessary Unit in Community

"Down at the gas plant these days the faithful employees of the gas company are stoking the white-hot fires and removing the ashes, dirt and soot from coal, in order that the company's customers may have clean fuel service in their homes," says the manager of the Binghamton Gas Company, Binghamton, N. Y.

"Gas has been called 'coal with a college education'. The fellows at the plant are the loyal men who are doing everything you would have to do yourself were gas service to stop suddenly.

"The product that comes to you without fuss or worry is the cleanest fuel on earth, made so by more than a century of engineering research, study and application. The story of its development into a dependable service, on tap at all hours, is one of great romance, and is a service rendered from generation to generation. Among those served by the gas company today are grandsons and granddaughters of customers served years ago.

"The gas business is part of the life blood of every prosperous and thriving community. It grows as the town or city grows, serving the same families year after year. Gas plants do not try business in one town, find the business poor and then pull up stakes and move elsewhere. They stick to communities through good times and bad times, rendering the best service possible. To serve with satisfaction one generation of customers after another is one of the greatest rewards that can come to any business."

Valdosta Gas Company Franchise Sold

Valdosta, Ga.—Plant, franchise and all other things of the Valdosta Gas Company have been sold to the Southern Gas & Power Company, an eastern company, with headquarters in Philadelphia.

The Southern Gas & Power Company already owned nine similar public utilities in North Carolina, Virginia and Georgia. The plant at Augusta was purchased some time ago.

J. H. Hagerty, who organized the Valdosta Gas Company twenty or more years ago and built the plant, has been the continuous manager. With the sale of the company to Valdosta Gas Company, prior to its passing to the eastern concern, Mr. Hagerty resigned his position. His sale was for the purpose of retiring from business, at least temporarily.

Charles H. Hagerty, a son of Mr. Hagerty, was named by the purchasers as local manager. He has "grown up" in the gas business in Valdosta and understands the business and people. The purchasers have already outlined an extensive campaign for extending the business of the concern into every section of the city.

Waterbury Gas Company Votes Stock Increase

Waterbury, Conn.—Stockholders of the Waterbury Gas Light Company, at a special meeting recently, voted an increase in stock amounting to $440,000, thus increasing the capitalization from $2,200,000 to $2,640,000. It was also voted to allow present stockholders to subscribe for the new stock at the rate of one new share for each five shares now held.

Under this vote the present stockholders may buy one new share of stock at par for each five shares they now hold. The par value of the stock is $25 but it is now selling at about $38. The stock may be subscribed for at the rate given only by stockholders of record of July 29. Subscriptions may be made any time before September 20.

The extra capital will be used to provide funds for extending the company's gas mains to Thomaston and for purchasing the Naugatuck Gas Company from the Connecticut Light & Power Company. The gas used by the Naugatuck Company has been obtained from the Waterbury Gas Company's plant in this city and it has been felt for some time by both the local company and the Connecticut Light & Power Company that the Naugatuck business could be more naturally handled by the local company.

The extension of the gas mains to Thomaston is the result of a demand from that section for gas for cooking and lighting. It was made possible through the passage of a bill in the last legislature empowering the local concern to extend its lines to that town.

Tax Valuation of the Public Service Company of Colorado

The tax valuation of the Public Service Company of Colorado as placed by the Colorado Tax Commission, for the year 1925, has been increased from $14,653,100 to $20,944,690, the increment explained by the Public Service Company taking over the Colorado Power Company, the value of the newly acquired company having been added in.

Acquires a Gas Franchise

The Rocky Mountain Gas Company has been given a franchise for the sale of natural gas in the City of Cody, Wyoming. There is an abundance of natural gas in the Oregon basin field which can be brought to Cody by the laying of a 12-mile pipe line. The Wyoming Public Service Commission has approved the laying of the pipe line.

Contracts Awarded

The gas industry seems to be looking with interest upon the Cottrell electrical tar precipitation process, about which so much has been heard lately, and the U. G. I. Contracting Company of Philadelphia reports considerable activity in this direction. They have recently taken several contracts for the installation of the Cottrell, including the plant of the St. Louis County Gas Co. at Shrewsbury, Mo. Likewise the new plant of Public Service Electric & Gas Company at Harrison, N. J., as well as the following: Tampa, Fla.; Boston, Mass.; Indianapolis, Ind.; Belle, W. Va.; Denver, Colo.; Washington, Pa.; Duluth, Minn.; Toledo, Ohio.

The Georgia Railway & Power Company of Atlanta have swung into line as users of automatic controls in the operation of their water gas apparatus, and have just placed order with the U. G. I. Contracting Co., Philadelphia, for the Model "B" U. G. I. automatic control.

Gas Plant for Six N. Y. Cities Uses "Superpower" Idea

Within a couple of months New York will have in operation a new and interesting example of a modern low-cost gas manufacturing plant which will serve six cities and replace their existing sources of supply. This, says the New York State Committee on Public Utility Information, is the most recent instance of a trend in the gas industry comparable with the superpower development which has made such striking changes in the electrical industry, and is based on the same principles—production from the most economical plants and interconnection of sources of supply for the assurance of uninterrupted and better service.

On the Hudson, near Troy, there is now being completed the first unit of coke ovens and blast furnaces of the Hudson Valley Coke & Products Corporation. It is expected that it will be in operation in September. It will produce up to 17 million cubic feet of gas a day, of the heat unit content stipulated by the Public Service Commission regulations, with 500 tons of coke and by-products of coal tar, benzol and ammonia sulphate. In addition, there will be an output from the blast furnaces of 500 tons of high-grade pig iron a day.

This plant will be connected with the gas mains now serving the cities of the Capital District—Albany, Troy, Schenectady, Cohoes, Rensselaer and Watervliet. Its output of gas will replace the product of plants now being operated in the first four communities, which will become reserve or stand-by plants, for use in emergencies. Economies in purchase of the coal supply necessary and in plant operation will result, says the Committee on Public Utility Information, which are expected to enable the utilities serving these cities to maintain existing rates for gas service, if not to lower them, in the face of rising coal and oil prices and increases in other items entering into the cost of gas service.

For a number of years there has been central production of the gas supply for a group of communities in the central part of New York State—Geneva, Auburn, Newark, Palmyra and some smaller neighbors. The gas for these towns is produced at the plant of the Empire Coke Company, in Geneva, and the mains which distribute it transverse three counties.

The plants of the Consolidated Gas Company in New York are interconnected and huge mains tie in these plants with the plant across the river in Astoria, which is the largest in the world. This system, in turn, is connected with the plants of the Westchester Lighting Company so that if necessary gas can be sent from the Manhattan plants or from Astoria to points in that district. The plants of the Brooklyn Union Gas Company's system, serving most of Kings County and a part of Queens County, are interconnected by an extensive system of mains so that service may continue uninterrupted in case of accident at any one plant or a shut-down to make improvements or repairs.

The Public Service Gas and Electric Company in New Jersey recently connected its plants at Trenton, Camden and Newark so that a pooling of gas resources for the huge industrial section of Northern New Jersey was effected. In California the establishments of the Pacific Gas & Electric Company are interconnected so that San Francisco, the Bay Cities and points as far distant as San Jose and Sacramento are included in the system with its pooled resources.

Long-distance distribution of natural gas has been in existence for many years. As wells in a given area have become exhausted, gradually diminishing the supply on which communities were dependent, new ones further away have been connected to existing mains so that in some parts of the country natural gas is used scores of miles from where it is produced. Jamestown and Salamanca, in this State, burn natural gas produced in Pennsylvania, and a part of the gas consumed in Buffalo, which now uses a mixture of manufactured and natural gas, comes from the same group of wells in Pennsylvania.

Newspaper Man Chosen Director of Publicity for Gas Company

Frank R. Jamison, owner and publisher of the Amarillo (Texas) "Tribune," originator of the Panhandle Press Association, one of the largest press associations in the United States, has been chosen director of publicity for the Public Service Company of Colorado.

The position is a newly created one, but Vice-president Stannard says that in the selection of Mr. Jamison he has a man that understands just what is required and that the publicity director will have jurisdiction in advertising all of the company's departments in Denver, Loveland, Boulder, Leadville, Alamosa, Salida, Sterling and all Colorado communities. Mr. Jamison will have his headquarters at Denver.

Cut Gas Rates in Wauwatosa

Wauwatosa, Wis.—Consumers of gas in Wauwatosa were granted a reduction of 5 cents per 1,000 cubic feet, according to a decision handed down by the State Railroad Commission.

The new rates ordered by the commission are: $1.15 for each 1,000 cubic feet up to 20,000 in one month; $1.05 per 1,000 cubic feet from 20,000 to 100,000 in one month; 95 cents per 1,000 cubic feet for the next 100,000 and 80 cents per 1,000 cubic feet over 200,000 in a month.

The Wauwatosa authorities, in the hearing before the commission, held that Wauwatosa should be given the same rate as West Allis and that Wauwatosa was entitled to a cut because of the large amount of gas used there.

Contracts Awarded

Materials for the reconstruction of the water gas sets for the gas plant of the Community Power & Light Company, Columbia, Mo., have all been shipped and work of putting the materials in place is going forward rapidly.

The contract for this material was placed a short time ago with the Western Gas Construction Company, Fort Wayne, Ind.